

890GX Extreme4 R2.0

AMD 890GX + SB850 Chipsets

ASRock
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Product Brief

- Supports AM3+, 8-Core CPU Ready
- ASRock DuraCap (2.5 longer life time), 100% Japan-made high-quality Conductive Polymer Capacitors
- Supports Dual Channel DDR3 1866(OC)
- Supports ATI™ Quad CrossFireX™, 3-Way CrossFireX™, CrossFireX™ and Hybrid CrossFireX™
- Integrated AMD Radeon HD 4290 graphics, DX10.1 Class iGPU, Shader Model 4.1
- Multi VGA Output options: D-Sub, DVI-D and HDMI
- 2 x Front USB 3.0 ports, 2 x Rear USB 3.0 ports, 5 x SATA3 connectors, 2 x IEEE1394 ports
- Supports XFast USB, AXTU, UEFI, Instant Boot, Instant Flash, OC Tuner, IES, OC DNA, Good Night LED, APP Charger
- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec), supports THX TruStudio PRO™

Detail Specification



Platform	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - All Solid Capacitor design (100% Japan-made high-quality Conductive Polymer Capacitors)
CPU	- Support for Socket AM3+ processors - Support for Socket AM3 processors: AMD Phenom™ II X6 / X4 / X3 / X2 (except 920 / 940) / Athlon II X4 / X3 / X2 / Sempron processors - Supports 8-Core CPU - Supports UCC feature (Unlock CPU Core) - Advanced V8 + 2 Power Phase Design - Supports CPU up to 140W - Supports AMD's Cool 'n' Quiet Technology - FSB 2600 MHz (5.2 GT/s) - Supports Untied Overclocking Technology - Supports Hyper-Transport 3.0 (HT 3.0) Technology
Chipset	- Northbridge: AMD 890GX - Southbridge: AMD SB850
Memory	- Dual Channel DDR3 memory technology - 4 x DDR3 DIMM slots - Supports DDR3 1866(OC)/1800(OC)/1600(OC)/1333/1066/800 non-ECC, un-buffered memory - Max. capacity of system memory: 32GB
Expansion Slot	- 3 x PCI Express 2.0 x16 slots (PCI2/PCI3: single at x16 or dual at x8/x8 mode; PCI4: x4 mode) - 1 x PCI Express 2.0 x1 slot - 3 x PCI slots
Graphics	- Integrated AMD Radeon HD 4290 graphics - DX10.1 class iGPU, Shader Model 4.1 - Max. shared memory 512MB - Built-in 128MB DDR3 1333/1200MHz SidePort Memory - Multi VGA Output options: D-Sub, DVI-D and HDMI - Supports HDMI Technology with max. resolution up to 1920x1200 (1080P) - Supports Dual-link DVI with max. resolution up to 2560x1600 @ 75Hz - Supports D-Sub with max. resolution up to 2048x1536 @ 85Hz - Supports HDCP function with DVI and HDMI ports - Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with DVI and HDMI ports
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC892 Audio Codec) - Premium Blu-ray audio support - Supports THX TruStudio PRO™
LAN	- PCIe x1 Gigabit LAN 10/100/1000 Mb/s - Atheros® AR8151 - Supports Wake-On-LAN
Rear Panel I/O	I/O Panel - 1 x PS/2 Keyboard Port - 1 x VGA/D-Sub Port - 1 x VGA/DVI-D Port - 1 x HDMI Port - 1 x Optical SPDIF Out Port - 4 x Ready-to-Use USB 2.0 Ports - 1 x eSATA3 Connector - 2 x Ready-to-Use USB 3.0 Ports - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - 1 x IEEE 1394 Port - 1 x Clear CMOS Switch with LED - HD Audio Jack: Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone
SATA3	- 5 x SATA3 6.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 0+1 and RAID 5), NCQ, AHCI and "Hot Plug" functions
USB 3.0	- 2 x Rear USB 3.0 ports by Etron EJ168A, support USB 1.0/2.0/3.0 up to 5Gb/s - 1 x Front USB 3.0 header (supports 2 USB 3.0 ports) by Etron EJ168A, supports USB 1.0/2.0/3.0 up to 5Gb/s
Connector	- 5 x SATA3 6.0 Gb/s connectors - 1 x IR header - 1 x COM port header - 1 x IEEE 1394 header - 1 x HDMI SPDIF header - 1 x Power LED header - CPU/Chassis/Power FAN connector - 24 pin ATX power connector - 8 pin 12V power connector - Front panel audio connector - 3 x USB 2.0 headers (support 6 USB 2.0 ports) - 1 x USB 3.0 header (supports 2 USB 3.0 ports) - 1 x Dr. Debug (7-Segment Debug LED)
Smart Switch	- 1 x Power Switch with LED - 1 x Reset Switch with LED - 1 x Clear CMOS Switch with LED
BIOS Feature	- 32Mb AMI UEFI Legal BIOS with GUI support - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU, VCCM, NB, SB Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), AMD OverDrive™ Utility, AMD Live! Explorer, ASRock Software Suite (CyberLink DVD Suite - OEM and Trial)
Unique Feature	- ASRock Extreme Tuning Utility (AXTU) - ASRock Instant Boot - ASRock Instant Flash - ASRock AIWI - ASRock APP Charger - ASRock SmartView - ASRock XFast USB - Hybrid Booster: - CPU Frequency Stepless Control - ASRock U-COP - Boot Failure Guard (B.F.G.) - Turbo 25 / Turbo 30 GPU Overclocking - Turbo UCC
Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU Quiet Fan - CPU/Chassis Fan Multi-Speed Control - Voltage Monitoring: +12V, +5V, +3.3V, Vcore
OS	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant
Certifications	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required)
Accessories	- Quick Installation Guide, Support CD, I/O Shield - 4 x SATA data cables (optional) - 2 x SATA 1 to 1 power cables (optional) - 1 x Front USB 3.0 Panel - 4 x HDD Screws - 6 x Chassis Screws - 1 x Rear USB 3.0 Bracket

The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

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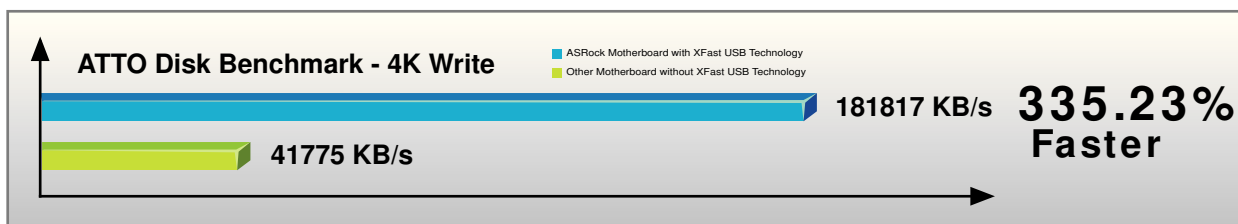
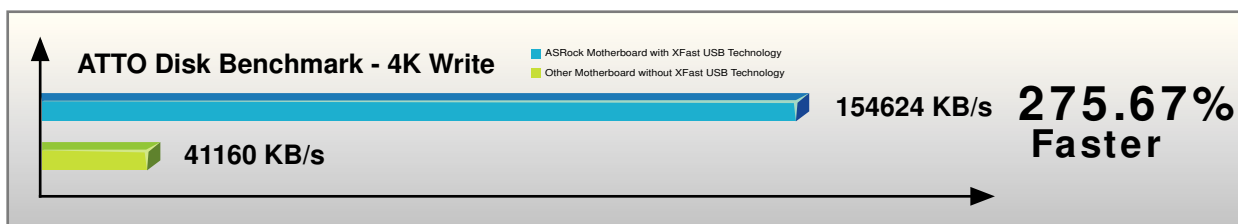
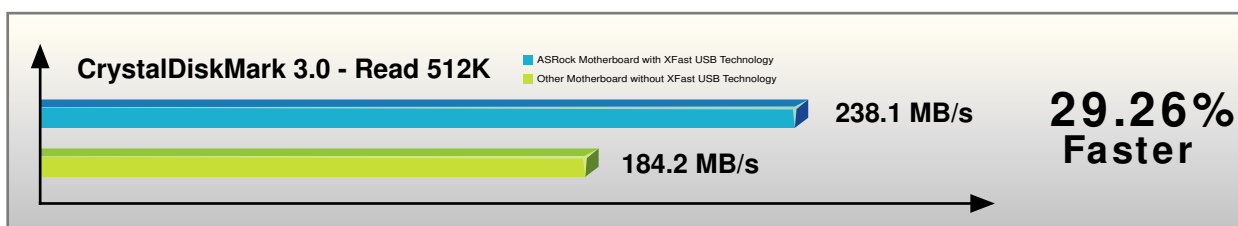
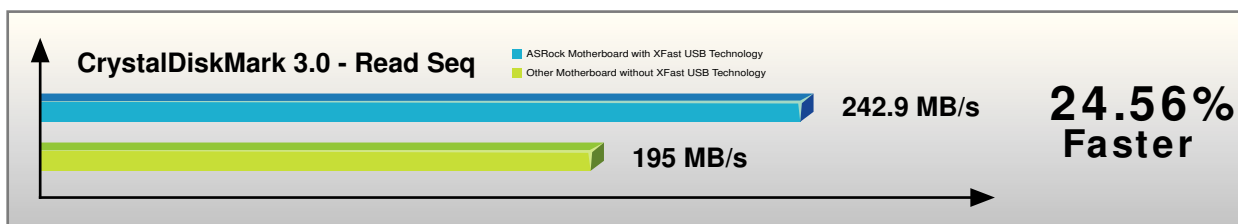
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ASRock XFast USB Technology - Faster Than Your Imagination!



(The rear I/O photo is example only)

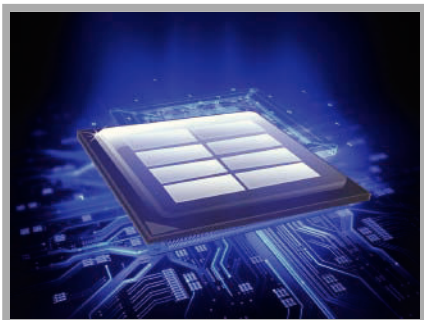
ASRock XFast USB Technology redefines the new standard in high performance computing. Proving once again to be the pioneer in motherboard industry, ASRock XFast USB Series Motherboards integrate with the latest XFast USB Technology which delivers the world's fastest USB data transfer speed. According to the below graph, it shows that the ASRock XFast USB technology can even boost USB 3.0 performance up to 335.23%!



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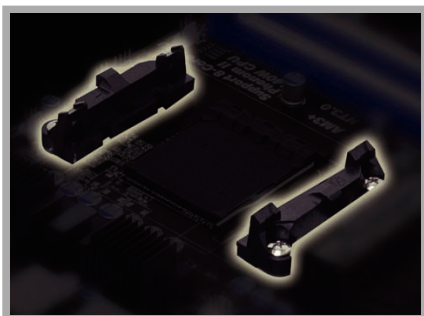
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AM3+ 8-Core Processor Support

Compatible with AM3+ 8-Core CPU! This board is designed to build up the most powerful system performance and deliver the most demanding technology for users nowadays. Just enjoy next generation computing with ASRock 8-Core CPU Ready motherboard.



Two-Piece Retention Module

By adopting the exclusive AMD two-piece retention module that improves the cooling efficiency with AM3+/AM3/AM2+ CPU coolers, this board allows heat dissipation becomes faster and effective.

THX TruStudio PRO™

THX TruStudio PRO™ is specially designed to bring the same great audio experience found in live performances, films, and recording studios - to the PC. THX TruStudio PRO™ provides the latest groundbreaking technologies that are products of years of collective experience. These technologies deliver the fullest audio experience for music, movies and games, while remaining true to the source and intention of the artists who created it.

THX
TruStudio PRO™



ASRock Turbo UCC

Your All-in-one Solution

- ✓ Overclocking
- ✓ Unlock CPU Core
- ✓ Power Saving

Motherboard	
Chipset	890GX Extreme4 R2.0
Chipset	AMD 890GX + SB850
CPU	Phenom II X2 555
RAM	Kingston 1333 1Gx2
VGA	ATI 4890
HDD	WD 500G

CINEBENCH R10 CPU Benchmark(x CPU)	
Turbo UCC OFF	5634
Turbo UCC ON	11125
97% Increase	

Sandra 09-Multi-Media Int	
Turbo UCC OFF	61.78
Turbo UCC ON	134.1
171% Increase	

Turbo UCC technology provides you an all-in-one solution to unlock the hidden cpu cores in the CPU, get the amazing system performance boost by auto-overclocking, and running the system in a certainly lower power consumption level as well. When you press "X" when switch on the computer, the system will automatically reboot itself, after that, the system will execute the Turbo UCC function. Enabling Turbo UCC, it will automatically help you to unlock the extra CPU core to enjoy an instant performance boost, and the system performance will boost up by overclocking CPU frequency, memory frequency and all related voltage settings! Different from normal high-energy consumption for overclocking or system upgrading process, ASRock Turbo UCC can allow an energy-saving overclocking or system upgrade computing operation!

Front USB 3.0 Panel



The Front USB 3.0 Panel supports 2 x USB 3.0 ports and provides a 2.5" SSD/HDD rack.



1. Prepare a 2.5" HDD/SSD and place it on the Front USB 3.0 Panel.



2. Screw the 2.5" HDD/SSD to the Front USB 3.0 Panel with four HDD screws.



3. Install the Front USB 3.0 Panel into the 2.5" drive bay of the chassis.



4. Screw the Front USB 3.0 Panel to the drive bay with six chassis screws.



5. Plug the Front USB 3.0 cable into the USB 3.0 header on the motherboard.



6. The Front USB 3.0 Panel is ready to use.

*HDD/SSD is not included in motherboard retail package.

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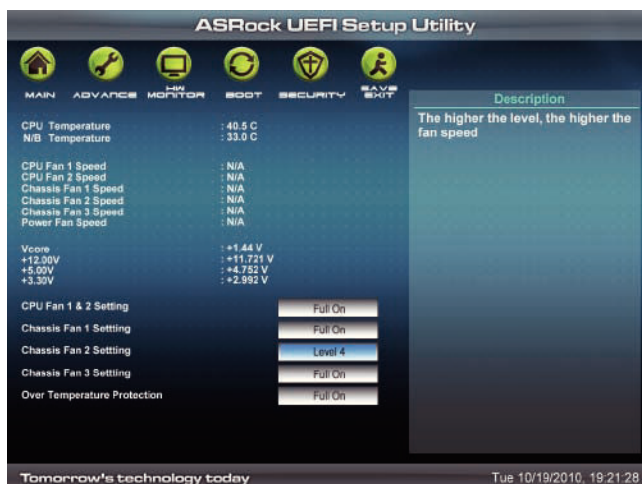
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AXTU – The All-in-1 Tuning Software



ASRock Extreme Tuning Utility (AXTU) is an all-in-one software to fine-tune different features in an user-friendly interface, which includes Hardware Monitor, Fan Control, Overclocking, OC DNA and IES. In Hardware Monitor, it shows the major readings of your system. In Fan Control, it shows the fan speed and temperature for you to adjust. In Overclocking, you are allowed to adjust the CPU frequency, ratio and some voltages for optimal system performance. In OC DNA, you can save your OC settings as a profile and share with your friends. Your friends then can load the OC profile to their own system to get the same OC settings. In IES (Intelligent Energy Saver), the voltage regulator can reduce the number of output phases to improve efficiency when the CPU cores are idle without sacrificing computing performance.

UEFI – The Revolutionary BIOS Interface



*Windows Vista-64bit or Windows 7-64bit OS is required

Unified Extensible Firmware Interface (UEFI) is a revolutionary BIOS utility which offers tweak-friendly options in an advanced viewing interface. Compared with traditional BIOS design, the latest UEFI utility provides lots improved functions. The major features of UEFI include:

1. Graphical Visual Experience – UEFI provides an improved visual interface with colorful icons and makes your computing environment more versatile to replace the traditional dull BIOS page.
2. Mouse Enabling – Besides keyboard control, you can freely use mouse to select your ideal settings in UEFI as well.
3. Supports 3TB bootable HDD - UEFI breaks the limitations of 2TB bootable HDD on traditional BIOS. With UEFI, you can enjoy 3TB bootable HDD size.

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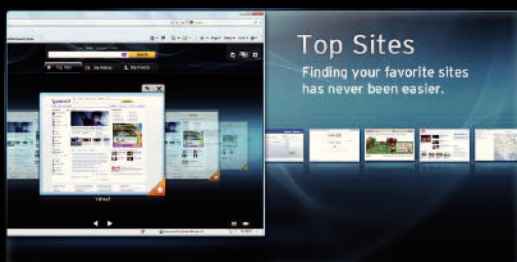


Experience the Brand New Browser Now

SmartView is the smart start page for IE that combines your most visited web sites, your history, your Facebook friends and your real-time newsfeed into an enhanced view for a more personal Internet experience. ASRock motherboards are exclusively equipped with the SmartView utility that helps you keep in touch with friends on-the-go.

The Major Features of SmartView

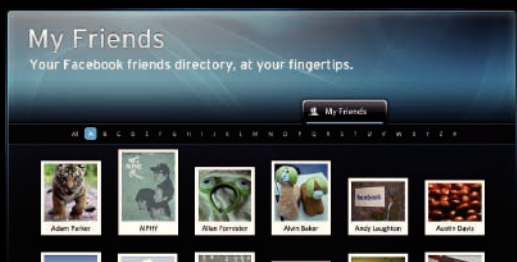
Visual thumbnail images which categorize and rank your frequently visited websites, as well as provide a chronological view of your browser history.



A persistent, real-time Facebook newsfeed located within the Internet Explorer sidebar.



A "Friend Wall" that conveniently alphabetizes your Facebook friends by profile photo, allowing immediate access to your friends' profile pages.



A "share this" button which allows you to instantly and immediately share webpage posts and links to your friends' Facebook pages.



A persistent search box from best-in-class search engines such as Google, Yahoo, Baidu (China only) and Yandex (Russia only).



Two mode options that allow you to choose your favored view style.



Flow Mode



Flow Mode

System Requirements

OS version: Win7 32/64 bit, Vista 32/64 bit

Browser version: IE8

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CyberLink

CyberLink Power2Go 6.1 LE OEM

Power2Go 6 lets you burn and backup videos, photos, music and data onto Blu-ray Discs and DVDs.

CyberLink MediaShow 4.1 SE OEM

Photo and video management software MediaShow edits videos and photos instantly, creates slideshow, and allows publishing directly to YouTube and Flickr.

CyberLink PowerDVD 8.0 DTS Trial

World-renowned PowerDVD 8 DTS delivers outstanding DVD movie playback quality on your PC.

CyberLink PowerDirector 8.0 Trial

PowerDirector - Video Editing software – edits high-definition videos including AVCHD, allows output to PSP iPod and Blu-ray Disc.

CyberLink PowerBackup 2.5 Trial

PowerBackup backups valuable data on your PC.